

Butterflies in the Department of Dordogne, France

By H. J. BELSEY*

For the lover of butterflies, this area must be one of the finest in Europe. It is ideal butterfly country, with a great deal of natural forest, mostly oak, and a lot of rough, poor quality land, that is suitable for nothing but occasional grazing. Although most land capable of being farmed is worked to a high standard, few chemicals are used, except nitrate on the grass, and, apart from the vines, very little spraying is done. I have never seen sprays used on fruit trees, the host plants of so many caterpillars. Wild flowers grow here in a profusion unknown in Northern Europe (I have listed 23 species of orchid in my neighbourhood), and the summer is hot and sunny, the fine weather normally lasting from March or April late into November.

It is estimated that there are some 350 species of butterfly in Europe, of which only 68 are now considered as British species. Here, mostly within walking distance of my house, I have so far counted 66 species. I am sure that is by no means a complete list. I do not catch butterflies, but watch them on the wing, or settled on flowers. It is more than 50 years since I first learned to identify British butterflies, and I am not as agile as I was then, and my eyesight is far less good. As a child, it was the first sight of an Orange-tip that aroused my interest, and I still get the same pleasure each year when the first specimens of this attractive species appear. This year they were very early, flying before the end of February, and they have been particularly abundant. The flight season lasted more than three months.

I find the blues the hardest to identify when flying, and I feel that I have probably missed some species, for in this respect my list is a poor one. The Chalk Hill Blue, and the Silver Studded Blue, ought certainly to be found here, but so far they have evaded me. On two occasions I have thought that I had seen a Large Blue or its nearly related species, but on both occasions the insect was disturbed before I could get close enough for positive identification. I have yet to see a Bath White, another butterfly that one might expect to be common here, and I have only seen one or two specimens of the Map butterfly (*Araschnia levana* L.), but perhaps we are near the limit of its range.

Apart from stray Vanessids, which may appear on a sunny day in mid-winter, the butterfly season is a long one, from March until late November. The latest butterfly to fly in any numbers is always the Clouded Yellow. In 1975, the last one I saw was on 23rd November, but in other years I have seen single specimens in December. It seems to be able to survive several degrees of frost at night, provided the day is warm and sunny. Strangely, the Vanessid butterflies seem to hiber-

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nate quite early here, and few are seen after the end of October.

This Spring (1976) has been exceptionally warm, with weeks of sunny weather, and during March alone I saw 13 species. These were: Swallow Tail; Orange Tip; Small Tortoiseshell; Brimstone; Peacock; Large Tortoiseshell; Small White; Comma; Wall; Green-veined White; Red Admiral; Small Copper; Wood White.

I often watch the tops of oak trees, sometimes with field glasses, but I have not yet seen a Purple Emperor, although conditions seem right for its presence. Not only have we extensive oak woods, but the two foodplants, sallow and willow, are common. Once or twice I have seen its near relation, the Lesser Purple Emperor (*A. Ilia*). On the first occasion, I was cleaning the paint of a door set upon trestles outside the house, and using sugar soap. The butterfly settled on the door, and started to feed on the foam. Nor did my presence disturb it, and it remained in the area all day, feeding on any splashes that had fallen on the ground.

The Camberwell Beauty is never common, but a few hibernated specimens appear each Spring, and a few more fresh ones each July. Both Swallowtails (*machaon* and *podalirius*) are common, and can often be seen flying together. This year they have been particularly plentiful. *Podalirius* always seems to be the more numerous. It is a fine sight to see three or four *podalirius* on a plant of valerian, with perhaps a couple of *machaon* and several Small Tortoiseshells.

It is well known that the numbers of butterflies fluctuate widely from year to year, although it is difficult to find any satisfactory explanation. Last year (1975) ought to have been a good year, as it was hot and sunny, but on the whole the autumn-flying species were scarce. There were hardly any Small Tortoiseshells, Peacocks or Red Admirals. The Swallowtails disappeared early in the season. This year they are all abundant again. It is common to see a dozen Small Tortoiseshells at once, but the most plentiful butterfly of all must be the Marbled White, which can be seen in hundreds along the roadside verges.

The Black-veined White fluctuates greatly in numbers. It was plentiful here in 1971 and 1972, but I saw none in 1973. It is considered that this butterfly is in danger of extinction in Europe, but conditions here ought to be favourable. There are thousands of more or less abandoned fruit trees, and the hawthorn is fairly common. It is unlikely to be affected here by the poisoning of its foodplants. (Note: since this was written, it has again been plentiful in June 1976. It seems to have a very short flight season, which perhaps provides a clue to the fluctuations.)

Another splendid butterfly of this region is the Dryad (*M. dryas*). For those unfamiliar with it, it can best be described as resembling a very large, bright, and dark-coloured Meadow Brown, with magnificent blue-pupilled eyes on the forewings. The Spanish name is "Blue-eyes", but here it has

no local names like most butterflies. The French seem to have been very unimaginative in finding popular names for common butterflies and wild flowers. It is a slow and heavy flyer, and very easy to observe.

Why do some butterflies go to so much trouble in selecting a leaf when laying eggs? For several days I have watched the female of *podalirius* laying eggs on a peach tree in our garden. She approaches the tree, flutters round it, and then goes away, to return in a few moments. This process is often repeated several times. Then begins a very tentative approach to the leaves, with much hovering and fluttering over various twigs, after which the butterfly usually goes away again. Then it returns once more, and may settle on one or two leaves, but without laying any eggs. Away it goes again, and possibly examines other plants not used as foodplants, such as honeysuckle. Finally, the butterfly makes another return, and after apparently examining many leaves, lays perhaps one egg. The whole process is usually repeated before another egg is laid. I have watched Wood Whites behaving in a very similar manner. On the other hand, Large and Small Whites usually lay eggs rapidly and systematically, moving along a row from plant to plant in the vegetable garden.

It is an established fact that many butterflies are particularly attracted to blue flowers. Frequently, when I have been wearing a blue shirt, Small Tortoiseshells, Peacocks and Red Admirals have alighted on it, and other species have made an investigation. Yesterday a Comma settled on my blue shorts, and was most reluctant to go away. A few days ago I saw a Peacock performing what appeared to be an extraordinary dance with two bright blue demoiselle flies. It was only after careful observation, with the butterfly apparently trying to capture the demoiselles, that I came to the conclusion that it was really trying to alight on them. Had it mistaken them for blue flowers, chicory for example, which is very common here, and waves in the wind in a dancing motion?

Another puzzle is why some butterflies appear to be so aggressive. From my observations, the Small Copper is the most pugnacious, with the Common Blue as runner-up. Often I have followed one of the larger fritillaries for several minutes, until it has finally come to rest on a flower. Just as I have got close enough to attempt to identify the species, it has been chased away by a Small Copper. Common Blues seem to reserve their attacks for various species of Satyridae.

What is the explanation? It can hardly be a matter of mistaken identity, such as one commonly sees when a male Small White pursues a female Orange Tip or Green-veined, or even at times a Marbled White. Another thing that puzzles me is the behaviour of the Large Tortoiseshell. Every day one or more enters the house. I am of course familiar with Vanessa butterflies entering the house to seek hibernation sites in the autumn. But the Large Tortoiseshells are at the very beginning of their flight season (end of June). They seem determined to stay indoors, and after being gently expelled,

come in again as soon as possible. Are they seeking shade? For nearly two weeks the afternoon temperature has been in the 90° F. Why seek shade in the house, when we are surrounded by forest which is much cooler?

Watching butterflies has given me great pleasure. Every year I have found new species, and there are probably more to find. Not only do we enjoy here the wide range of species, but, at least with the commoner kinds, they fly in vast numbers. And, so far as can be seen, nothing threatens them at present.

Here is the list of species. In the case of butterflies not occurring in the British Isles, the English names used are those to be found in *Butterflies of Britain and Europe*, by L. G. Higgins and N. D. Riley.

PAPILIONIDAE: *Papilio machaon* L. (Swallowtail); *Iphiclides podalirius* L. (Scarce Swallowtail).

PIERIDAE: *Pieris brassicae* L. (Large White); *P. rapae* L. (Small White); *P. napi* L. (Green-veined White); *Aporia crataegi* L. (Black-veined White); *Anthocharis cardamines* L. (Orange Tip); *Colias crocea* Fourcroy (Clouded Yellow); *C. hyale* L. (Pale Clouded Yellow); *Gonepteryx rhamni* L. (Brimstone); *G. cleopatra* L. (Cleopatra); *Leptidea sinapis* L. (Wood White).

NYMPHALIDAE: *Apatura ilia* D. & S. (Lesser Purple Emperor); *Limenitis reducta* Stgr. (Southern White Admiral); *L. camilla* L. (White Admiral); *Nymphalis antiopa* L. (Camberwell Beauty); *N. polychloros* L. (Large Tortoiseshell); *Inachis io* L. (Peacock); *Vanessa atalanta* (Red Admiral); *V. cardui* L. (Painted Lady); *Aglais urticae* L. (Small Tortoiseshell); *Polygonia c-album* L. (Comma); *Araschnia levana* L. (Map); *Argynnis paphia* L. (Silverwashed Fritillary); *Mesoacidalia aglaja* L. (Dark Green Fritillary); *Fabriciana adippe* D. & S. (High Brown Fritillary); *Clossiana selene* D. & S. (Small Pearl-bordered Fritillary); *C. euphrosyne* L. (Pearl-bordered Fritillary); *C. dia* L. (Violet Fritillary); *Melitaea cinxia* L. (Glanville Fritillary); *M. didyma* Esp. (Spotted Fritillary); *M. phoebe* D. & S. (Knapweed Fritillary); *Euphydryas aurinia* Rott. (Marsh Fritillary); *Mellicta athalia* Rott. (Heath Fritillary).

SATYRIDAE: *Melanargia galathea* L. (Marbled White); *M. occitanica* Esp. (Western Marbled White); *Hipparchia semele* L. (Grayling); *H. statilinus* Hufn. (Tree Grayling); *Minois dryas* Scop. (Dryad); *Brintesia circe* F. (Great Banded Grayling); *Aphantopus hyperantus* L. (Ringlet); *Maniola jurtina* L. (Meadow Brown); *Pyronia tithonus* L. (Gatekeeper); *Coenonympha pamphilus* L. (Small Heath); *Pararge aegeria* L. (Speckled Wood); *Lasiommata megera* L. (Wall); *L. maera* L. (Large Wall).

LYCAENIDAE: *Thecla betulae* L. (Brown Hairstreak); *Quercusia quercus* L. (Purple Hairstreak); *Nordmannia ilicis* Esp. (Ilex Hairstreak); *Strymonidia pruni* L. (Black Hairstreak); *Callophrys rubi* L. (Green Hairstreak); *Lycaena phlaeas* L. (Smaller Copper); *Everes argiades* Pallas (Short-tailed Blue); *Cupido minimus* Fuessl. (Small Blue); *Celastrina*

argiolus L. (Holly Blue); *Aricia agestis* D. & S. (Brown Argus); *Polyommatus icarus* Rott. (Common Blue).

HESPERIDAE: *Pyrgus malvae* L. (Grizzled Skipper); *P. alveus* Hbn. (Large Grizzled Skipper); *P. serratulae* Rambur (Olive Skipper); *Erynnis tages* L. (Dingy Skipper); *Carterocephalus palaemon* Pallas (Chequered Skipper); *Thymelicus sylvestris* Poda (Small Skipper); *Ochlodes venatus* B. & G. (Large Skipper); *Hesperia comma* L. (Silver-spotted Skipper).

Current Literature

Birdwing Butterflies of the World by **Bernard D'Abrera**. (First published in Australia 1975.) This new edition is published by the Hamlyn Publishing Group Ltd. for Country Life Books. Folio. 260 pp., includes 300 coloured plates and one distribution map. U.K. price £35.

This beautifully produced monograph by the author of the standard works on the Australian Lepidoptera, covers the Troides, Ornithoptera and Trogonoptera. Both surfaces of both sexes of 30 species and 120 sub-species and their variations are illustrated natural size, and described, and many of the early stages are also shown in the superb colour photographs, mainly taken by the author. Great care has been taken to reproduce faithfully the subtle variations of metallic greens and blues found in this group. There are a number of plates showing habitats.

The ruthless exploitation of the group by professional dealers and collectors is discussed and an account given of the attempts to conserve the most threatened species.

The group ranges from N. India, through the islands of the S.W. Pacific to Australia, and, by bringing all this material together, the author makes it possible to follow many of the intricacies of species groups, island species and sub-species. The taxonomy of the group is reviewed. The author's reasons for largely following Zeuner are explained, together with his rejection of the genus *Schoenbergia*. Early stages are described when known, and the specific *Aristolochia* foodplants named. There is a critical appreciation of Mould's paper on the Cape York population (*Aust. Ent. Mag.*, 2 (2) 1974).

The work is well bound and tastefully boxed. Although very much a specialist book, it will also appeal to the bibliophile. — E.H.W.

The World you Never See: Insect Life by **Theodore Rowland-Entwistle**. Hamlyn Group. 128 pp., 278 colour plates. £2.95.

An excellent general account of insects, their variety and ecology, built round the astonishing photographs by the Oxford Scientific Film Group who need no introduction to people who actually watch television. The skill and patience needed to capture some of the shots is beyond praise. Excellent value at all levels. — E.H.W.